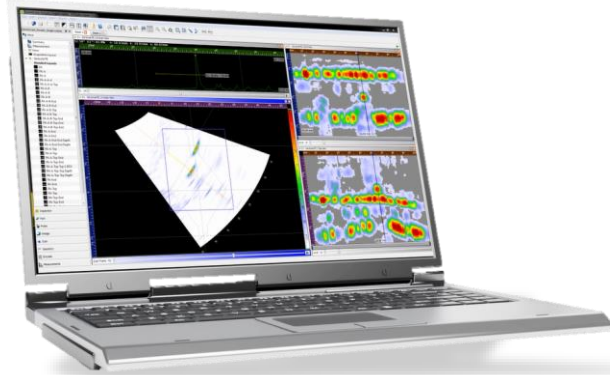




# What's New In version 3.8

02/02/2015, release 3.8.2



# STAY UP-TO-DATE !!





# Sonatest always recommends to upgrade your instruments & software to the latest release

- 3.8 is the latest merged milestone version for the three Sonatest VEO, PRISMA & UTStudio advanced products.
- You will have access to the new features and functionalities to maximize your investment and inspection productivity.
- You will benefit from the latest interface enhancements and other bug fixes for a better user experience.
- At your next calibration in one of Sonatest Accredited Service Centers, you will get the new generation of advanced product calibration certification. With this new development, 3.8 software will now be required to proceed to a calibration service work on both VEO and PRISMA instruments.



# New Features & Functionalities references in this document



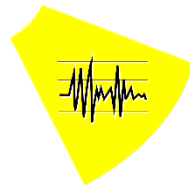
Instrument Conventional UT enhancement



Instrument TOFD enhancement



Instrument Phased Array enhancement



UTStudio software enhancement



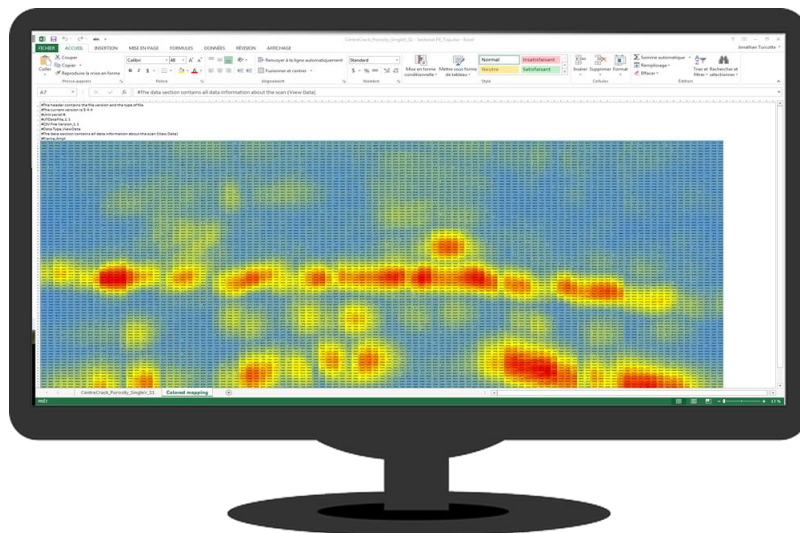
# CSV EXPORT (embedded new option)

- A-Scan, B-Scan, B-Log, C-Scan, L-Scan, S-Scan...

UT

TOFD

PA



\* For TOFD, only A-Scan export is available



# CSV EXPORT (embedded new option)

UT

TOFD

PA

- Onboard function to export information of a selected view to a CSV file (*this is a data format that is compatible with spreadsheets like Excel*)
- Quickly generate useful raw data (amplitude, thicknesses) that can be easily transferred to your customer or colleagues
- Very useful feature to optimize workflow when raw data are required for advanced or customized solutions





# GPIO connector

- VEO and PRISMA GPIO outputs can now be customized.

UT

TOFD

PA

Pin #	Signal Name	Description
1 (red dot)	VCC	Power 5 V, 300 mA max.
2	Output 1	Customized by user (see note 1 below)
3	Output 2	Customized by user (see note 1 below)
4	Output 3	Customized by user (see note 1 below)
5	Output 4	Customized by user (see note 1 below)
6	Input 1	Cannot be customized (see note 2 below)
7	Input 2	Cannot be customized (see note 2 below)
8 (center pin)	GND	Power return – Ground

GPIO (general purpose in/out) connector pinout



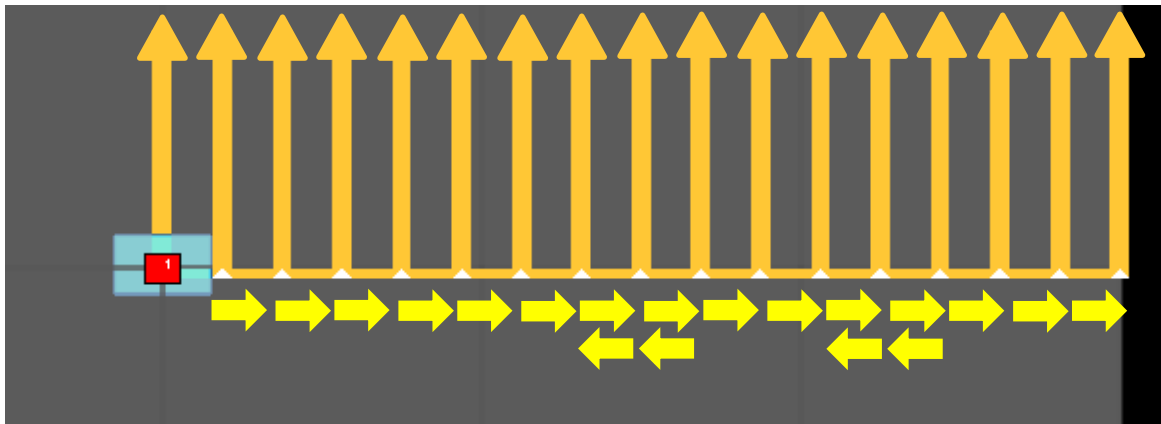


## 2D Scan Previous Index

- When scanning using a manually indexed scanplan, the user can now go back to a previous index to «renew» a faulty scan pass

UT

PA







# S/L-Scan : New PA View Aspect Ratio



PA



# «Trigger at PRF» new encoded scanning mode

UT

- Mode where the UT scan pulses are done at the PRF rate
- The resulting envelop between two grid points is recorded for the next grid point result
- Available when doing :
  - ONE UT mono-scan
  - Encoding Setup = Scan Axis Only
  - Signal Rectification = Full
  - Averaging = Disabled
- Featuring on VEO & PRISMA
- Good match with SEWP!



## Single Element WheelProbe (SEWP)

- The Single Element WheelProbe uses Sonatest Ltd rubber technology for near-dry ultrasonic coupling.
- Using a single element 15 mm immersion probe, the Single Element WheelProbe is designed to operate between 1 MHz and 10 MHz and is available with a low pressure 38 mm tyre (shown) and a higher 11 pressure 25 mm tyre.





# Weld Overlay is now displayed in bright blue

UT

TOFD

PA

The Weld Overlay color is now different than the view grid

bright blue  
vs.  
light gray





# Collapse / Expand menu function

UT

TOFD

PA

- Click MENU short key to collapse or expand the menu sub-tabs
- Ease the direct access to specific functions & parameters
- Enhance the learning process & understanding of the UI tab sub-structure





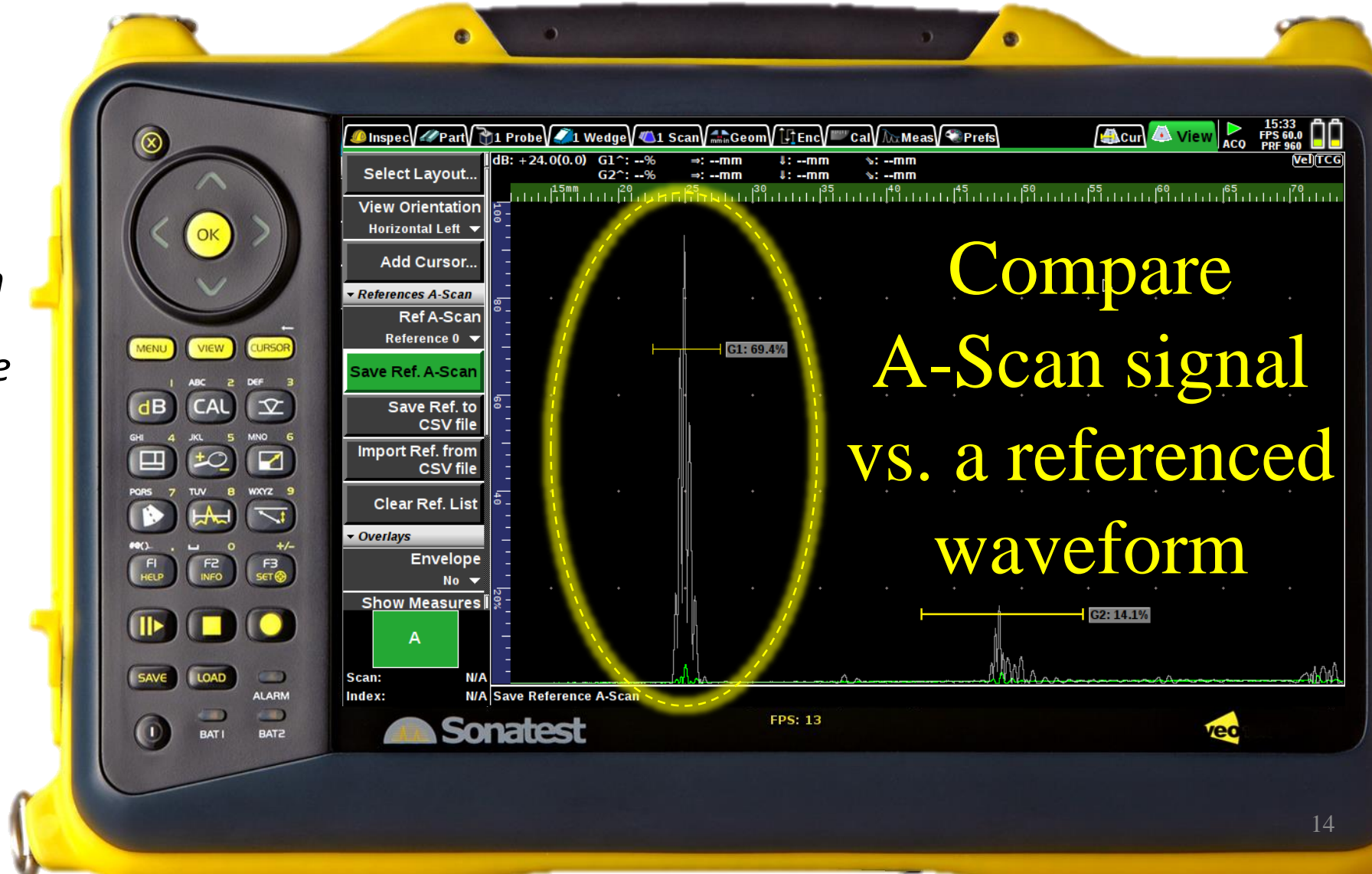
# Reference A-SCAN

UT

TOFD

PA

- Possibility to save the A-Scan waveform for future reference
- Reference A-Scan (A-Log) saved into
  - configuration file (.UTCFG)
  - or export into a CSV file
- Featuring on VEO, PRISMA & UTStudio



Compare  
A-Scan signal  
vs. a referenced  
waveform



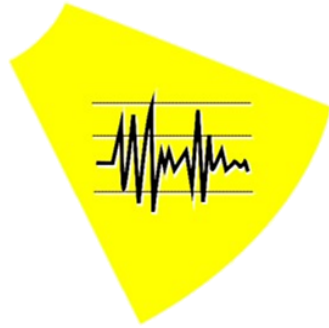
# List of Prisma & VEO new features & functionalities since 3.5.9

UT

TOFD

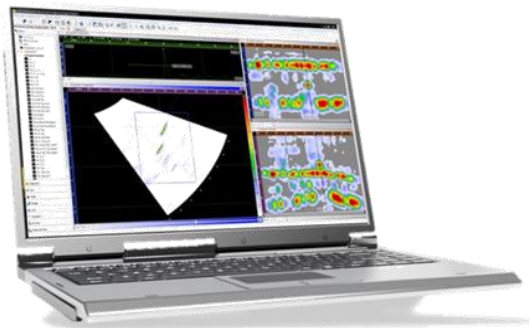
PA

- Support the new generation of Sonatest Accredited Service Center calibration equipment
- GPIO connector: Implemented ability to configure Outputs behavior (PRF-synchronized signals available)
- Provide full compatibility and example configurations for new WheelProbe features
- Encoder: Create new "Trigger at PRF" parameter for single encoder mono-element scans.
  - New encoding mode where elements pulse at the PRF speed instead of pulsing at each encoder resolution step.
  - The envelope of all pulses between 2 encoder grid steps is recorded.
  - It requires specific settings to enable this feature: only one UT mono channel (no multi-scan), no averaging selected and full UT signal rectification applied.
  - Be aware that this mode consumes more battery power.
- Encoder: "Previous Index" button added when using Manual index encoding
- Config: Added warning if the encoder precision is too sensitive for fast encoding speeds.
- Config: Added warning if multiple PA probes are configured on the same connector pins.
- View: Weld overlay now has a different color than view grids.
- View: Added ability to save envelope as a Reference A-Scan.
- S-Scan/L-Scan: Add view option for Stretching aspect ratio to take all available space.
- UI: Show buffer size warning when buffer almost full
- UI: Gate and Extractor key pad function now reselect previous gate/extractor, fixes #6466
- UI: Pressing MENU key now collapses or expands menu items.
- Mono-Element Scan: Improve gain linearity at high gain levels
- TCG: Improve "Add TCG at Gate" behavior in Manual TCG wizard, allow adjusting signal inside tolerance.
- View: Rulers now have a smaller granularity.
- Media Browser: show file list in Save Dialog
- Added "Integrators Package" software enabled option (export CSV)
- Various stability & performance optimizations / fixes



# UTStudio

optimizes your workflow!



Steps on UTStudio

Steps on instrument



Setup

**1**

Reporting

**4**

Post  
Analysis

**5**

Setup

**2**

**3**

Calibration Inspection

Reporting

Post  
Analysis

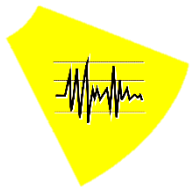


# List of UTStudio new features & functionalities since 3.5.9

UT

TOFD

PA



- S-Scan/L-Scan: Add button for Stretching view aspect ratio to take all available space.
- Encoder: Create new "Trigger at PRF" parameter for single encoder mono-element scans.
- Config: Added warning if the encoder precision is too sensitive for fast encoding speeds.
- View: Weld overlay now has a different color than view grids.
- View: Added ability to save Reference A-Scans.
- UI: Gate key (G) now reselect previous gate, fixes #6466
- View: Rulers now have a smaller granularity.
- Various stability & performance optimizations / fixes





# PROTECT YOUR INVESTMENT

ALWAYS BE UP TO DATE  
BENEFIT FROM LATEST IMPROVEMENTS  
MAXIMIZE CAPABILITIES & PRODUCTIVITY